

5 AN OLEFIN EPOXIDATION PROCESS
 AND A CATALYST FOR USE IN THE PROCESS

10 ABSTRACT

 A process for the epoxidation of an olefin, which
process comprises reacting a feed comprising an olefin,
oxygen and an organic halide, in the presence of a
catalyst comprising silver and rhenium deposited on a
15 carrier, wherein the catalyst comprises rhenium in a
quantity of at most 1.5 mmole/kg, relative to the weight
of the catalyst, and at most 0.0015 mmole/m², relative to
the surface area of the carrier, and in which process the
reaction temperature is increased to at least partly
20 reduce the effect of loss of activity of the catalyst
while the organic halide is present in a relative
quantity Q which is maintained constant, which relative
quantity Q is the ratio of an effective molar quantity of
active halogen species present in the feed to an
25 effective molar quantity of hydrocarbons present in the
feed; and a catalyst comprising silver and rhenium
deposited on a carrier, wherein the catalyst comprises
rhenium in a quantity of at most 0.9 mmole/kg, relative
to the weight of the catalyst, and at most
30 0.0015 mmole/m², relative to the surface area of the
carrier.